

**CLAIMS**

**Please amend the claims as follows:**

1. (amended) A system for initializing a data processing system, comprising:
  - a plurality of parameter registers;
  - a ~~user-defined~~ hardware initialization input port capable of receiving defining a first set of user-definable initialization data utilized for initializing said data processing system;
  - a serial non-volatile memory, coupled to said plurality of parameter registers, said serial non-volatile memory utilized for storing a second set of initialization data utilized for initializing said data processing system;
  - a parallel non-volatile memory, coupled to said plurality of parameter registers, said parallel non-volatile memory utilized for storing a third set of initialization data utilized for initializing said data processing system; and
  - a multiplexer interposed between said parameter registers and said ~~user-defined~~ hardware initialization ~~input port~~, said serial non-volatile memory, and said parallel non-volatile memory, wherein said multiplexer determines for determining a selected set of initialization data selection from among said first, second and third sets of initialization data user-defined initialization input, said serial non-volatile memory, and said parallel non-volatile memory and relays relaying said selected set of initialization data selection to said plurality of parameter registers, in response to a control signal, such that said data processing system is initialized from an uninitialized state to a minimal level of operation utilizing said selected set of initialization data.
2. (amended) The system for initializing a data processing system according to claim 1, further including a set of control resistors coupled to a user-defined control input signal, wherein said set of control resistors outputs said control signal in response to said user-defined control input signal.
3. (amended) The system for initializing a data processing system according to claim 1, further including a set of initialization resistors coupled to a the user-defined hardware initialization ~~input port~~ to provide said first set of user-definable initialization data, wherein said set of

initialization resistors outputs said first set of user-definable initialization data to said hardware initialization port ~~an initialization signal~~, in response to an ~~said user-defined~~ initialization input signal.

4. (amended) The system for initializing a data processing system according to claim 1, further including:

a processor; and

a command decoder is interposed between said multiplexor and said processor and said parallel non-volatile memory, wherein said command decoder filters ~~is utilized for filtering~~ commands issued from said processor for a set of desired commands.

5. (amended) The system for initializing a data processing system according to claim 1, further including a serial non-volatile memory controller is interposed between said serial non-volatile memory and said multiplexor, wherein said serial non-volatile memory controller controls ~~is utilized for controlling~~ data output by said ~~sent from~~ serial non-volatile memory.

6. (amended) The system for initializing a data processing system according to claim ~~[[1]]~~ 4, further including a parallel non-volatile memory controller is interposed between said parallel non-volatile memory and said command decoder, wherein said parallel non-volatile memory controller controls data output by said ~~is utilized for controlling data sent from~~ parallel non-volatile memory.

7. (amended) A data processing system, comprising:

a processor;

a memory, coupled to said processor; and

a system for initializing the a data processing system, including ~~comprising~~:

a plurality of parameter registers;

a user-defined hardware initialization port capable of receiving input defining a first set of user-definable initialization data utilized for initializing said data processing system;

a serial non-volatile memory, coupled to said plurality of parameter registers, said serial non-volatile memory utilized for storing a second set of initialization data utilized for initializing said data processing system;

a parallel non-volatile memory, coupled to said plurality of parameter registers, said parallel non-volatile memory utilized for storing a third set of initialization data utilized for initializing said data processing system; and

a multiplexor interposed between said parameter registers and said ~~user-defined hardware initialization port input~~, said serial non-volatile memory, and said parallel non-volatile memory, wherein said multiplexor selects a selected set of initialization data from among said first, second and third sets of initialization data for determining a selection from said user-defined initialization input, said serial non-volatile memory, and said parallel non-volatile memory and relaying relays said selection selected set of initialization data to said plurality of parameter registers, in response to a control signal; wherein said data processing system initializes from an uninitialized state to a minimal level of operation utilizing said selected set of initialization data.

8. (original) A host data processing system, comprising:

an integrated circuit in which a data processing system in accordance with claim 7 is fabricated;

an interconnect coupled to said integrated circuit;

a host processor; and

a host memory.

9. (amended) A method of initializing a data processing system, said method comprising:

sending a control signal to a multiplexor, said control signal designating one of a plurality of sets of initialization data as a preferred set of initialization data for initializing said data processing system, said plurality of sets of initialization data including:

a first set of user-definable initialization data accessible at a hardware initialization port of the data processing system;

a second set of initialization data accessible in a serial non-volatile memory; and

a third set of initialization data accessible in a parallel non-volatile memory;

in response to the control signal, the multiplexor relaying said preferred set of initialization data to a plurality of parameter registers; and

utilizing said preferred set of initialization data stored in said plurality of parameter registers to initialize said data processing system from an uninitialized state to a minimal level of operation.

10. (original) The method of initializing a data processing system according to claim 9, further including: wherein sending a control signal to a multiplexor comprises sending said control signal in response to receipt of generating a signal, by a user, from at a user-defined hardware control input port to send said control signal to said multiplexor.

11. (original) The method of initializing a data processing system according to claim 9, further including:

a command decoder filtering commands by a command decoder, said commands issued from a processor, in response to designating said third a set of initialization data stored in a parallel non-volatile memory as said preferred set of initialization data.

12.-14. (canceled)